

2. (Amended) The method according to claim 1, wherein the copper agonists are divalent metal ions, oligopeptides, oligonucleotides, oligosaccharides, nucleotide analogs, chemical substance libraries or low molecular natural substances from microorganisms or plants.

3. (Amended) A method of identifying a copper agonist which binds to the copper binding site of APP and/or exerts an inhibitory effect on the release of the amyloid A β peptide, comprising the steps of:

(a) contacting APP or a fragment thereof carrying the copper binding site with various concentrations of a compound which potentially has the above effect, and

(b) detecting a decrease of the A β protein in mammals expressing the amyloid A β peptide.

4. (Amended) The method according to claim 3, wherein the decrease of the A β peptide is detected by means of ELISA or immunoprecipitation from cell culture systems.

5. (Amended) The method of identifying a copper agonist which binds to the copper binding site or APP and/or exerts an inhibitory effect on the release of the amyloid A β peptide comprising the steps of:

(a) contacting of APP or a fragment thereof carrying the copper binding site with a dissolved or immobilized substance library or with low molecular substances from microorganisms and/or plants,

(b) when a dissolved substance library or liquid low molecular substances are used immunoprecipitation of the competitive or non-competitive copper binding site/ligand complex from the solution with antibodies specific to APP or the fragment thereof or, when an immobilized substance library is used, release of the ligand from the copper binding site/ligand complex by the addition of copper salts,

(c) identification of the ligand, and

(d) selection of ligands which after binding to the copper binding site of APP exert an inhibitory effect on the release of the amyloid A β peptide, wherein step (d) can optionally precede step (c).